

AMENDMENT

Amendments to the Claims:

The following listing reflects amendments to the claims and replaces all prior versions and listings of claims in this application.

1-9. (Cancelled)

10. (Currently amended) A polynucleotide sequence encoding ~~the multiple epitope fusion polypeptide sequence of claim 69~~ an immunogenic multiple epitope fusion polypeptide comprising more than one *Streptococcus* GapC epitope from more than one *Streptococcus* species, or the complement thereof.

11. (Currently amended) A ~~The~~ polynucleotide sequence ~~encoding the multiple epitope fusion polypeptide sequence of claim 2 or the complement thereof~~ of claim 10, wherein the multiple epitope fusion polypeptide further comprises a signal sequence.

12. (Currently amended) A ~~The~~ polynucleotide sequence ~~encoding the multiple epitope fusion polypeptide sequence of claim 3 or the complement thereof~~ of claim 10, wherein the multiple epitope fusion polypeptide further comprises a transmembrane sequence.

13. (Currently amended) A ~~The~~ polynucleotide sequence ~~encoding the multiple epitope fusion polypeptide sequence of claim 71 or the complement thereof~~ of claim 10, wherein the multiple epitope fusion polypeptide comprises GapC epitopes from *Streptococcus dysgalactiae*, *Streptococcus agalactiae* and *Streptococcus parauberis*.

14. (Currently amended) A The polynucleotide sequence encoding the multiple epitope fusion polypeptide sequence of claim 72 or the complement thereof of claim 13, wherein said more than one GapC epitopes are separated by a spacer amino acid sequence.

15. (Currently amended) A The polynucleotide sequence encoding the multiple epitope fusion polypeptide sequence of claim 73 or the complement thereof of claim 10, wherein said immunogenic polypeptide comprises an epitope from a Streptococcus GapC protein corresponding to

(a) the amino acid sequences shown at amino acid positions 62 to 81, inclusive, of SEQ ID NOS: 12, 14, 16, 18 and 20;

(b) the amino acid sequences shown at about amino acid positions 102 to 112, inclusive, of SEQ ID NOS: 12, 14, 16, 18 and 20;

(c) the amino acid sequences shown at about amino acid positions 165 to 172, inclusive, of SEQ ID NOS: 12, 14, 16, 18 and 20;

(d) the amino acid sequences shown at about amino acid positions 248 to 271, inclusive, of SEQ ID NOS: 12, 14, 16, 18 and 20; and

(e) the amino acid sequences shown at about amino acid positions 286 to 305, inclusive, of SEQ ID NOS: 12, 14, 16, 18 and 20.

16. (Currently amended) A The polynucleotide sequence encoding the multiple epitope fusion polypeptide sequence of claim 74 or the complement thereof of claim 15, wherein the multiple epitope fusion polypeptide comprises an amino acid sequence having at least 80% sequence identity to the contiguous sequence of amino acids depicted at positions 27-448 of the amino acid sequence depicted in SEQ ID NO:22.

17. (Currently amended) A The polynucleotide sequence encoding the multiple epitope fusion polypeptide sequence of claim 75 or the complement thereof of claim 16, further comprising a signal sequence.

18. (Currently amended) ~~A The polynucleotide sequence encoding the multiple epitope fusion polypeptide sequence of claim 9 or the complement thereof of claim 17, wherein the signal sequence comprises the amino acid sequence depicted at positions 1-26 of SEQ ID NO:22.~~

19. (Original) A recombinant vector comprising:

(a) the isolated polynucleotide of claim 10; and

(b) at least one control element operably linked to said isolated polynucleotide,

whereby said coding sequence can be transcribed and translated in a host cell.

20. (Original) A recombinant vector comprising:

(a) the isolated polynucleotide of claim 11; and

(b) at least one control element operably linked to said isolated polynucleotide,

whereby said coding sequence can be transcribed and translated in a host cell.

21. (Original) A recombinant vector comprising:

(a) the isolated polynucleotide of claim 12; and

(b) at least one control element operably linked to said isolated polynucleotide,

whereby said coding sequence can be transcribed and translated in a host cell.

22. (Original) A recombinant vector comprising:

(a) the isolated polynucleotide of claim 13; and

(b) at least one control element operably linked to said isolated polynucleotide,

whereby said coding sequence can be transcribed and translated in a host cell.

23. (Original) A recombinant vector comprising:

(a) the isolated polynucleotide of claim 14; and

(b) at least one control element operably linked to said isolated polynucleotide,

whereby said coding sequence can be transcribed and translated in a host cell.

24. (Original) A recombinant vector comprising:

(a) the isolated polynucleotide of claim 15; and

(b) at least one control element operably linked to said isolated polynucleotide,

whereby said coding sequence can be transcribed and translated in a host cell.

25. (Original) A recombinant vector comprising:

(a) the isolated polynucleotide of claim 16; and

(b) at least one control element operably linked to said isolated polynucleotide,

whereby said coding sequence can be transcribed and translated in a host cell.

26. (Original) A recombinant vector comprising:

(a) the isolated polynucleotide of claim 17; and

(b) at least one control element operably linked to said isolated polynucleotide, whereby

said coding sequence can be transcribed and translated in a host cell.

27. (Original) A recombinant vector comprising:

the isolated polynucleotide of claim 18; and

(b) at least one control element operably linked to said isolated polynucleotide,

whereby said coding sequence can be transcribed and translated in a host cell.

28. (Original) A host cell comprising the recombinant vector of claim 19.

29. (Original) A host cell comprising the recombinant vector of claim 20.

30. (Original) A host cell comprising the recombinant vector of claim 21.

31. (Original) A host cell comprising the recombinant vector of claim 22.
32. (Original) A host cell comprising the recombinant vector of claim 23.
33. (Original) A host cell comprising the recombinant vector of claim 24.
34. (Original) A host cell comprising the recombinant vector of claim 25.
35. (Original) A host cell comprising the recombinant vector of claim 26.
36. (Original) A host cell comprising the recombinant vector of claim 27.
37. (Withdrawn) A method for producing a multiple epitope fusion polypeptide, said method comprising culturing the cells of claim 28 under conditions for producing said polypeptide.
38. (Withdrawn) A method for producing a multiple epitope fusion polypeptide, said method comprising culturing the cells of claim 29 under conditions for producing said polypeptide.
39. (Withdrawn) A method for producing a multiple epitope fusion polypeptide, said method comprising culturing the cells of claim 30 under conditions for producing said polypeptide.
40. (Withdrawn) A method for producing a multiple epitope fusion polypeptide, said method comprising culturing the cells of claim 31 under conditions for producing said polypeptide.

41. (Withdrawn) A method for producing a multiple epitope fusion polypeptide, said method comprising culturing the cells of claim 32 under conditions for producing said polypeptide.

42. (Withdrawn) A method for producing a multiple epitope fusion polypeptide, said method comprising culturing the cells of claim 33 under conditions for producing said polypeptide.

43. (Withdrawn) A method for producing a multiple epitope fusion polypeptide, said method comprising culturing the cells of claim 34 under conditions for producing said polypeptide.

44. (Withdrawn) A method for producing a multiple epitope fusion polypeptide, said method comprising culturing the cells of claim 35 under conditions for producing said polypeptide.

45. (Withdrawn) A method for producing a multiple epitope fusion polypeptide, said method comprising culturing the cells of claim 36 under conditions for producing said polypeptide.

46-59. (Cancelled)

60. (Withdrawn) A method of treating or preventing a bacterial infection in a vertebrate subject comprising administering to said subject a therapeutically effective amount of a polynucleotide according to claim 10.

61. (Withdrawn) The method of claim 60, wherein said bacterial infection is a streptococcal infection.

62. (Withdrawn) The method of claim 60, wherein said bacterial infection causes mastitis.

63-75. (Cancelled)